TECHNICAL INFORMATION

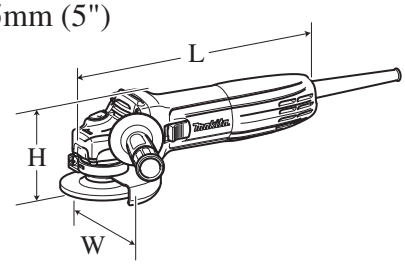
Model No. ► GA4030, GA4530, GA5030

Description ► Angle Grinders 100mm (4"), 115mm (4-1/2"), 125mm (5")

CONCEPT AND MAIN APPLICATIONS

GA4030/ GA4530/ GA5030 are small diameter Angle grinders with ergonomically best possible barrel grip.
Regardless of whether the user grips motor housing or rear cover, the extra-ergonomic barrel grip fits any user's palm and fingers perfectly, and provides easy and comfortable handling while minimizing hand fatigue and pain.

Each model is also available with Plastic carrying case as GA4030K/ GA4530K/ GA5030K.
GA5030 is also available with Aluminum case as GA5030KSP.



Dimensions: mm (")			
Model No.	**GA4030**	**GA4530**	**GA5030**
Length (L)	266 (10-1/2)		
Width (W)	117 (4-5/8)	128 (5)	138 (5-7/16)
Height (H)	95 (3-3/4)	103 (4-1/16)	

► Specification

Voltage (V)	Current (A)	Cycle (Hz)	Continuous Rating (W)		Max. Output (W)
			Input	Output	
110	6.9	50/60	720	440	960
120	6.0	50/60	---	440	960
220	3.4	50/60	720	440	960
230	3.3	50/60	720	440	960
240	3.2	50/60	720	440	960

Model No.		**GA4030**	**GA4530**	**GA5030**
Wheel size: mm (")	Diameter	100 (4)	115 (4-1/2)	125 (5)
	Hole diameter	16 (5/8)	22.23 (7/8)	
No load speed: min.$^{-1}$ = rpm		11,000		
Protection against electric shock		Double insulation		
Power supply cord: m (ft)		Brazil, Australia: 2.0 (6.6), Other countries: 2.5 (8.2)		
Net weight: kg (lbs)		1.4 (3.1)		
Weight according EPTA-Procedure 01/2003*: kg		1.7	1.8	1.8

* with Wheel cover, Inner flange, Lock nut, Side grip; without Power supply cord

► Standard equipment

Lock nut wrench 20 ..... 1 (for GA4030)
Lock nut wrench 28 .....1 (for GA4530/GA5030; USA, Canada, Mexico, Panama)
Lock nut wrench 35 ..... 1 (for GA4530/GA5030; all countries except USA, Canada, Mexico, Panama)
Depressed center wheel ..... 1 (100-36 for GA4030, 115-36 for GA4530, 125-36 for GA5030)
Side grip (standard soft grip) ..... 1 (Anti-vibration grip instead if required)
Wheel cover (standard type) ..... 1 (Toolless wheel cover instead if required)
Plastic carrying case ..... 1 (for GA4030K, GA4530K, GA5030K)
Aluminum case ..... 1 (for GA5030KSP)

Note: The standard equipment for the tool shown above may differ by country.

► Optional accessories

Wheel guards
Cut-off wheels
Abrasive discs
Rubber pad (for abrasive disc)
Sanding lock nuts
Wire cup brushes
Wire bevel brush (for GA4030 only)
Wheel brush (for GA5030 only)
Anti-vibration grip

► Repair

CAUTION: Unplug the tool and remove the following parts for safety before repair/ maintenance in accordance with the instruction manual!
Depressed center wheel, Inner flange, Lock nut, Wheel cover

[1] NECESSARY REPAIRING TOOLS

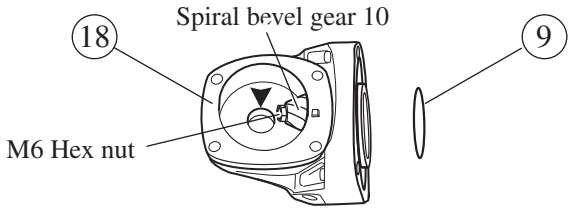
Code No.	Description	Use for
1R004	Retaining ring S pliers ST-2	Removing / Installing Ring spring 11
1R005	Retaining ring R pliers RT-2N	Removing / Installing Retaining ring R-32
1R006	Retaining ring R pliers RT-2E	Removing / Installing Retaining ring R-26
1R031	Bearing setting pipe 28-20.2	Removing Spindle from Spiral bevel gear 37
1R246	Round bar for arbor 18-100	Removing Ball bearing 6201DDW when difficult to remove by hand
1R268	Spring pin extractor M3	Disassembling Shaft lock mechanism
1R269	Bearing extractor (small)	Removing Ball bearing 696ZZ from Spindle
1R281	Round bar for arbor 7-50	Removing Switch lever from Switch knob

[2] LUBRICATION

Apply the following lubricants to the designated portions to protect parts and product from unusual abrasion.

Item No.	Description	Portion to lubricate	Lubricant	Amount
⑱	Gear housing	Gear room	Makita grease SG No. 0	6.9g
⑨	O-ring 26	inside		a little

Fig. 1



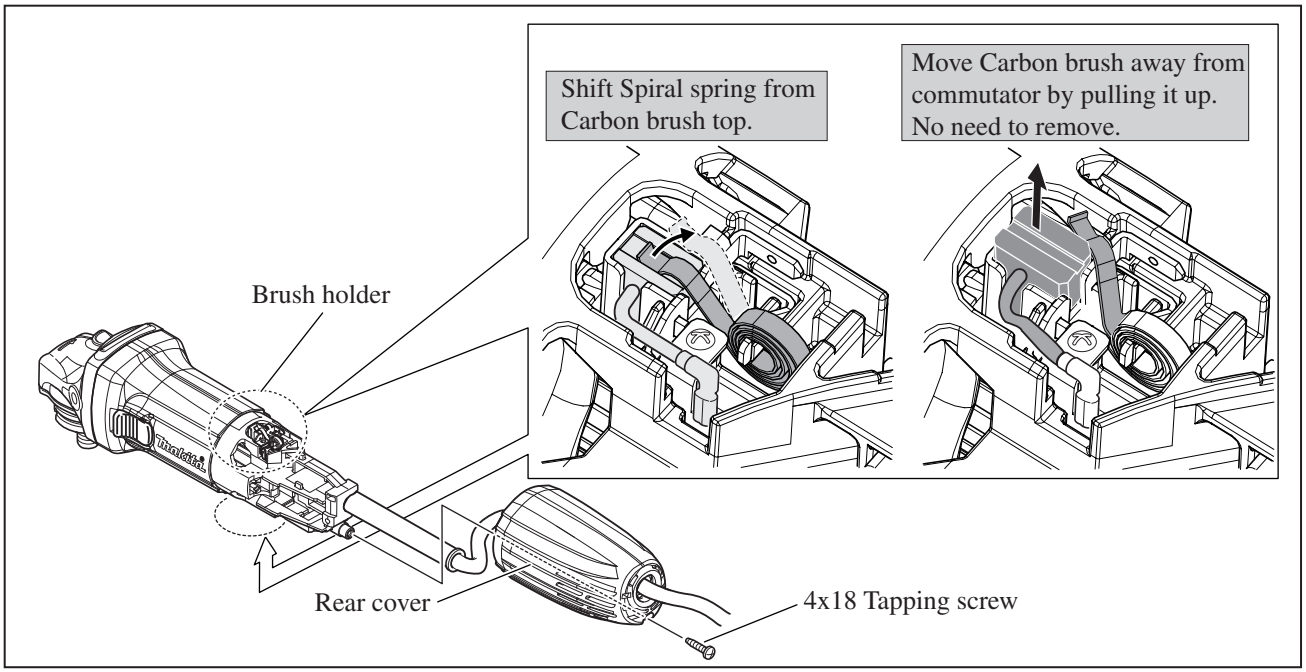
[3] DISASSEMBLY/ASSEMBLY

[3] -1. Armature, Ball bearing 629DDW, Spiral Bevel Gear 10

DISASSEMBLING

(1) Remove Rear cover by loosening 4x18 Tapping screw.
(2) Move Carbon brushes away from Armature's commutator to prevent scratching.

Fig. 2



Repair

[3] DISASSEMBLY/ASSEMBLY

[3] -1. Armature, Ball bearing 629DDW, Spiral bevel gear 10 (cont.)

DISASSEMBLING

(3) Remove Armature together with Gear housing from Motor housing as illustrated in **Figs. 3,and 4**.
(4) Remove Armature from Gear housing as illustrated in **Figs. 5 and 6**.

Fig. 3

Remove M4x14 Pan head screw (4pcs.) with which Bearing box is fastened to Gear housing.

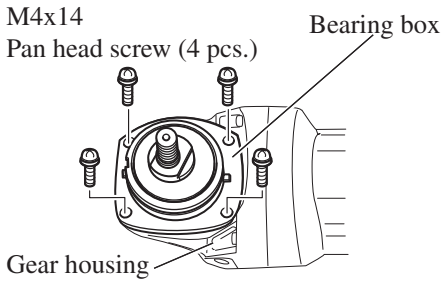


Fig. 4

After removing 4x22 Tapping screws (4pcs.), separate Gear housing together with Armature as illustrated below.

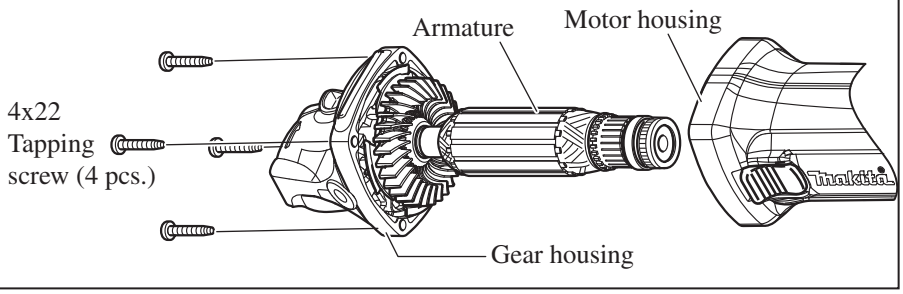
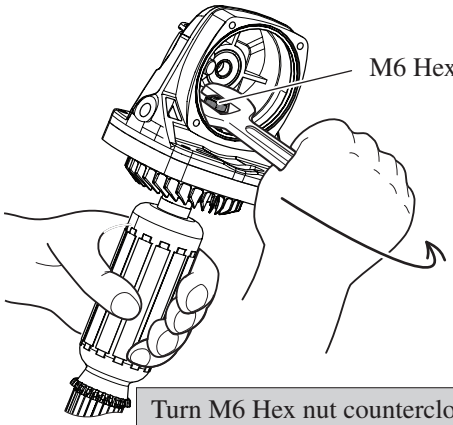


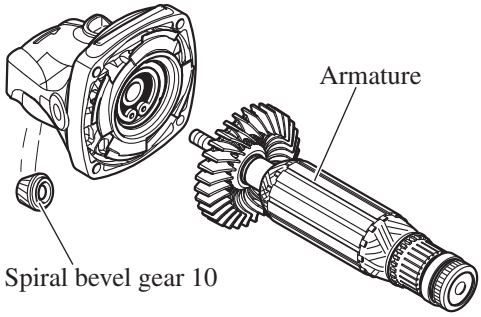
Fig. 5



Turn M6 Hex nut counterclockwise with a wrench to remove it.

Fig. 6

Pull off Armature while supporting Spiral bevel gear 10 by hand so as not to drop off from Gear housing.



Note: If difficult to remove Armature due to galling and seizing of Spiral bevel gear 10 in Gear housing:

1. Spray the lubricant between Spiral bevel gear 10 and Armature shaft.
2. Cover Spiral bevel 10 with a cloth, and hold Spiral bevel gear 10 over the cloth with water pump pliers.
3. Remove Spiral bevel gear 10 by turning the water pump pliers counterclockwise.

Repair

[3] DISASSEMBLY/ASSEMBLY

[3] -1. Armature, Ball bearing 629DDW, Spiral bevel gear 10 (cont.)

DISASSEMBLING

(5) Take out Ball bearing 629DDW as illustrated in **Figs. 7 and 8**. Remove Ball bearing 607LLB from Armature as illustrated in **Fig. 9**.

Fig. 7

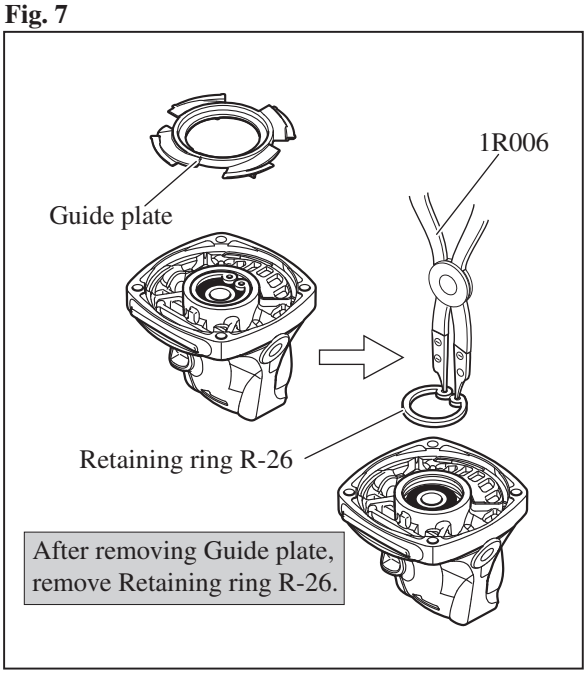


Fig. 8

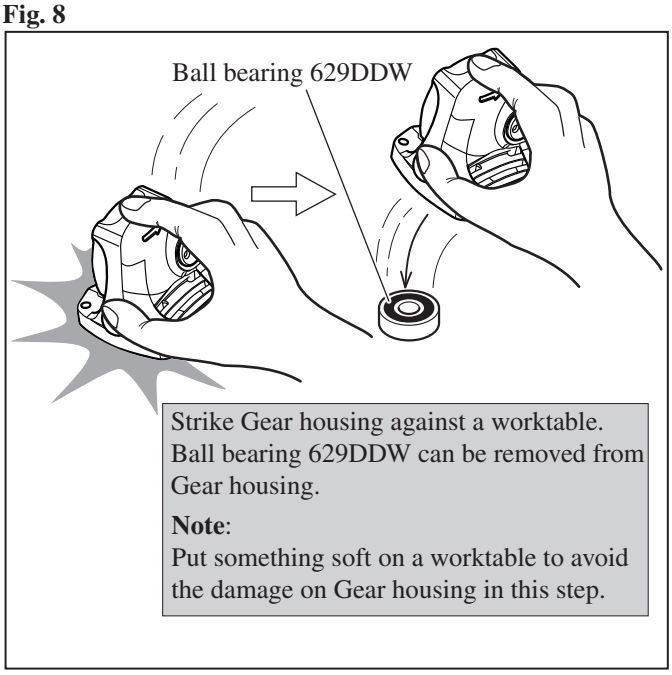
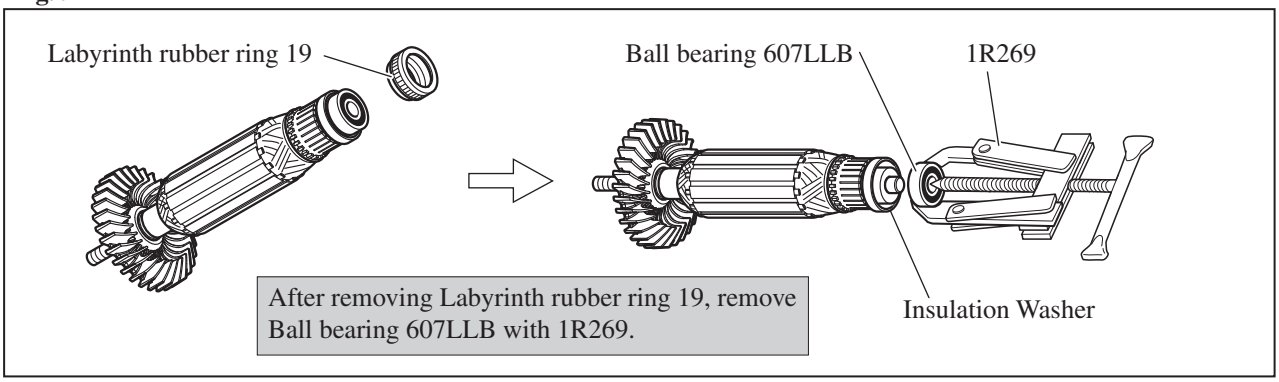
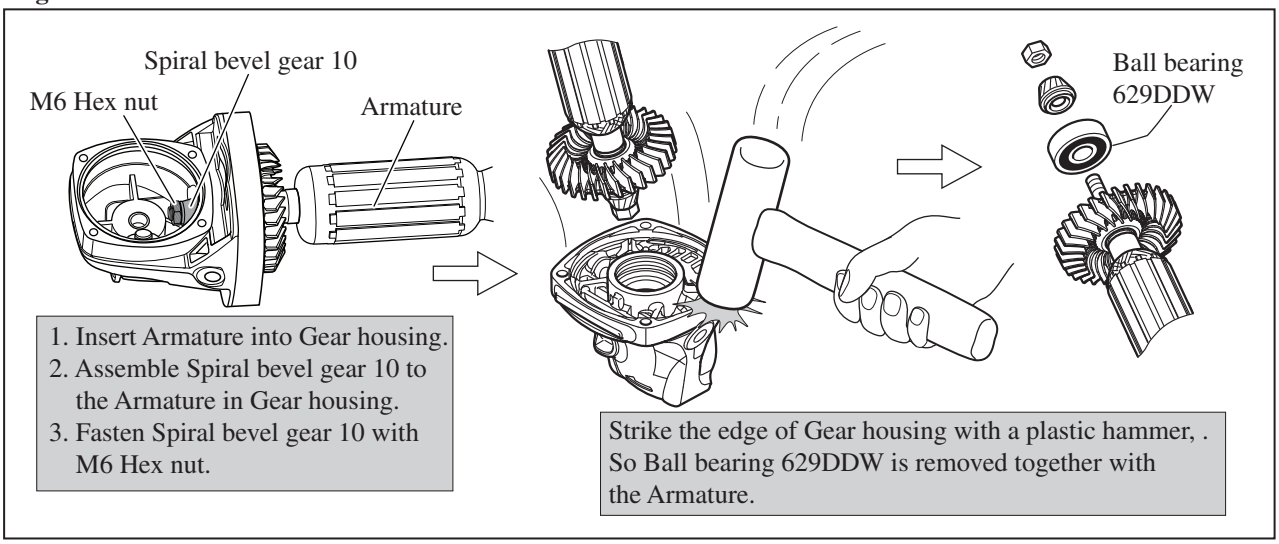


Fig. 9



Note: If difficult to remove the Ball bearing 629DDW in the way illustrated in **Fig. 8**, remove the Ball bearing as illustrated in **Fig. 10**.

Fig. 10



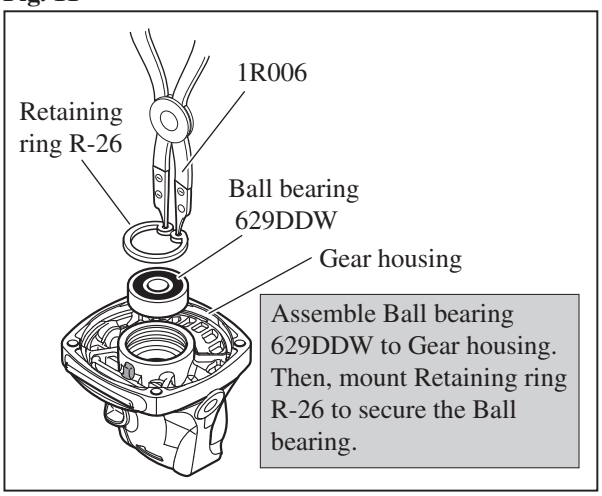
Repair

[3] DISASSEMBLY/ASSEMBLY
[3] -1. Armature, Ball bearing 629DDW, Spiral bevel gear 10 (cont.)

ASSEMBLING

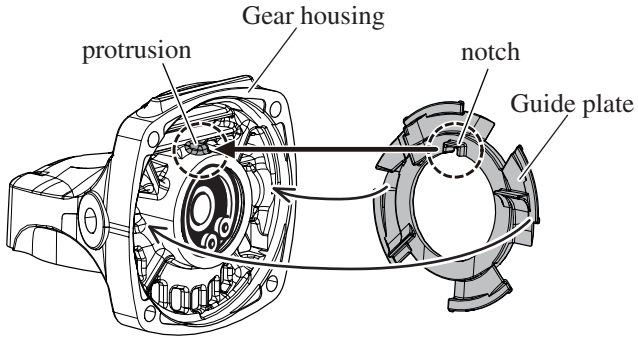
Refer to **Figs. 11 to 15**.

Fig. 11



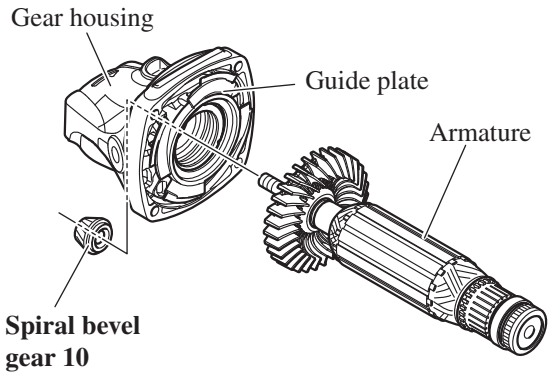
Assemble Ball bearing 629DDW to Gear housing. Then, mount Retaining ring R-26 to secure the Ball bearing.

Fig. 12



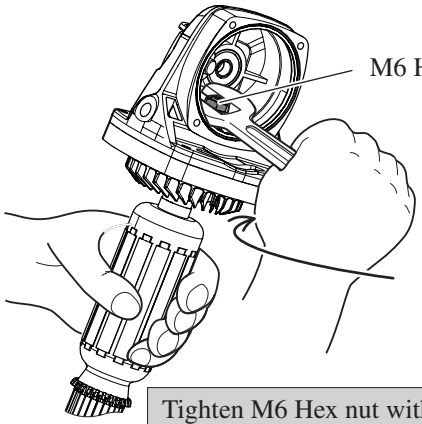
Assemble Guide plate to Gear housing while fitting the notch of Guide plate to the protrusion of Gear housing.

Fig. 13



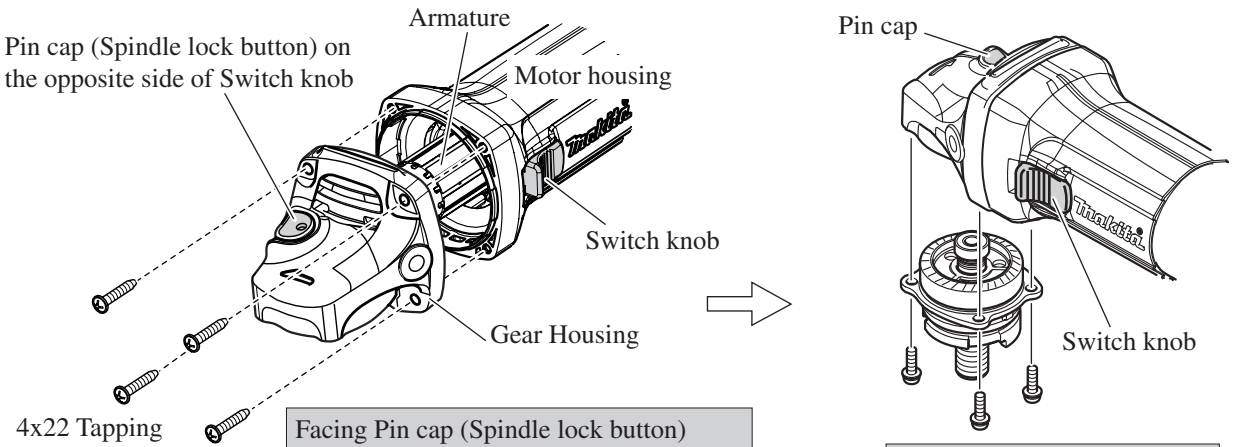
Insert Armature into Gear housing, and assemble Spiral bevel gear 10 to Armature in Gear housing.

Fig. 14



Tighten M6 Hex nut with a wrench by turning clockwise to secure the Spiral bevel gear 10 .

Fig. 15



Facing Pin cap (Spindle lock button) to the opposite side of Switch knob, assemble Gear Housing to Motor housing.

Assemble bearing box section to Gear housing.

Repair

[3] DISASSEMBLY/ASSEMBLY

[3] -2. Spiral Bevel Gear 37, Ball Bearing 6201DDW

DISASSEMBLING

The parts in Bearing box can be removed illustrated in **Figs. 16 to 19**. There is no need to disassemble Motor section.

Fig. 16

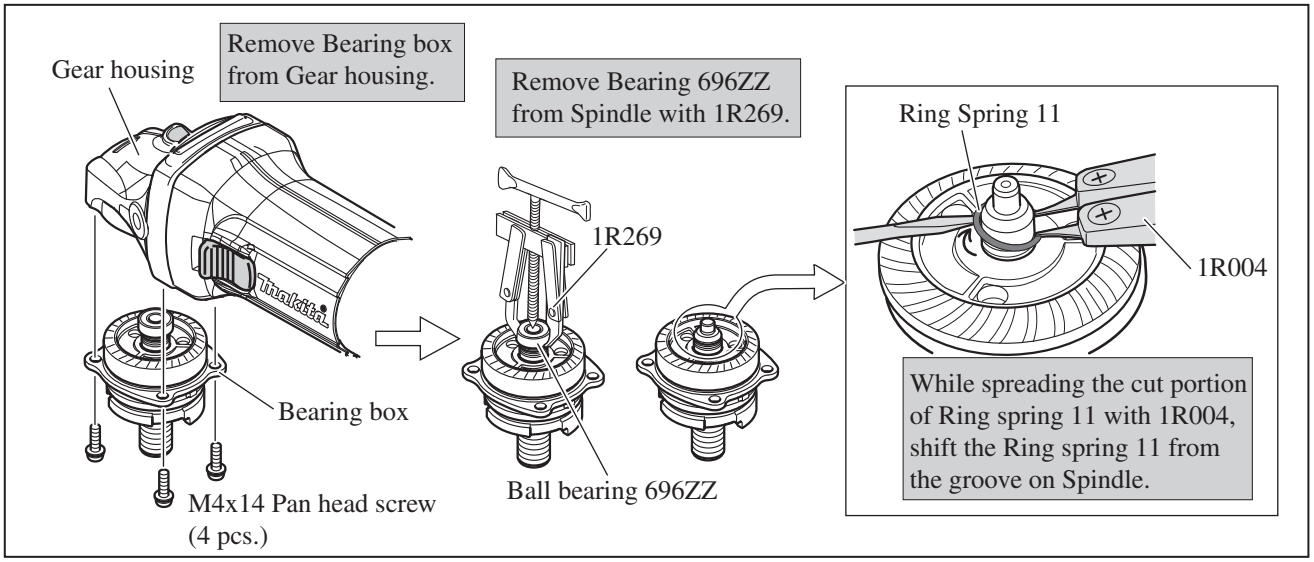


Fig. 17

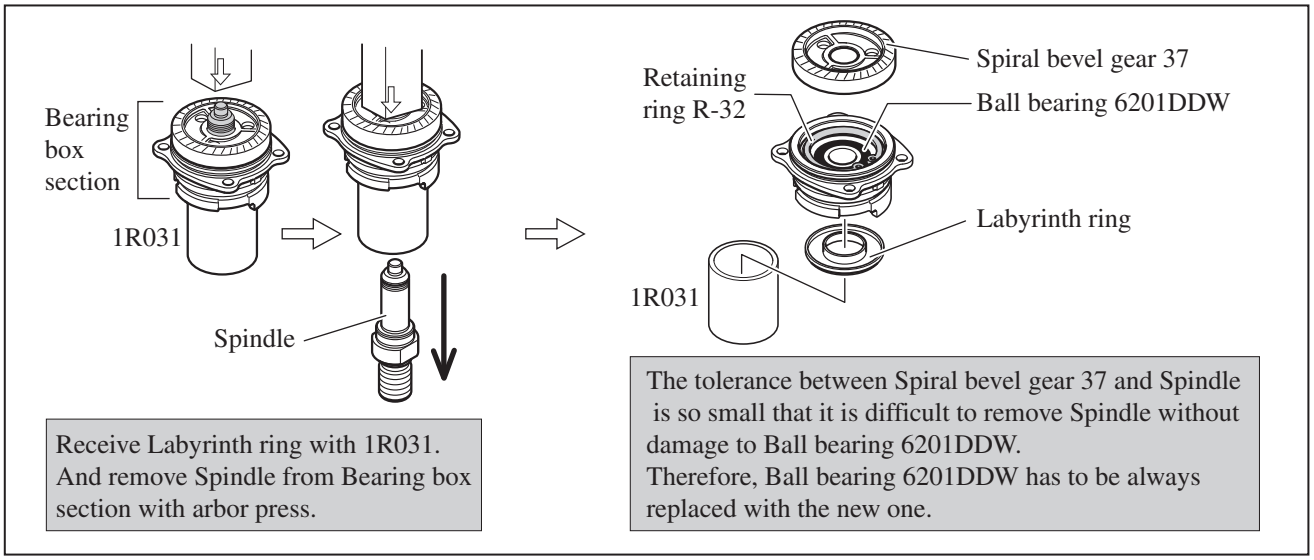


Fig. 18

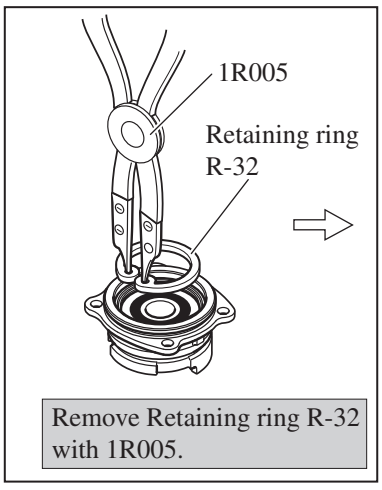
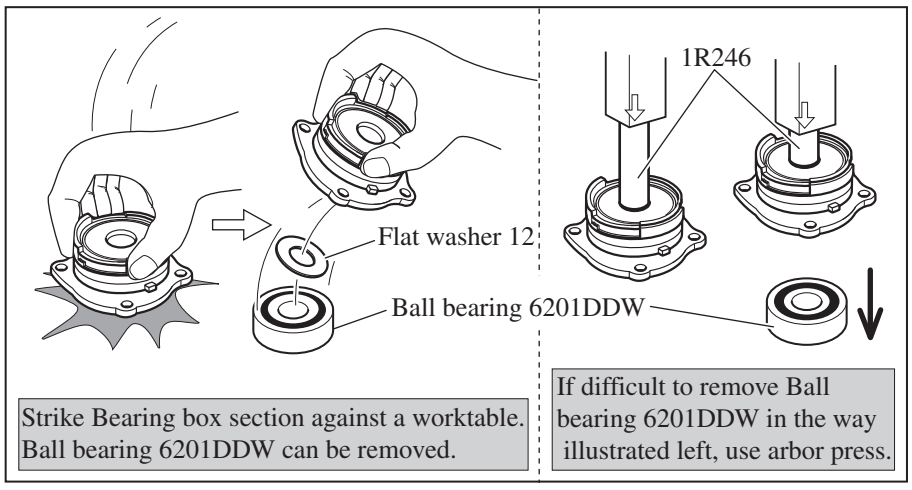


Fig. 19



Repair

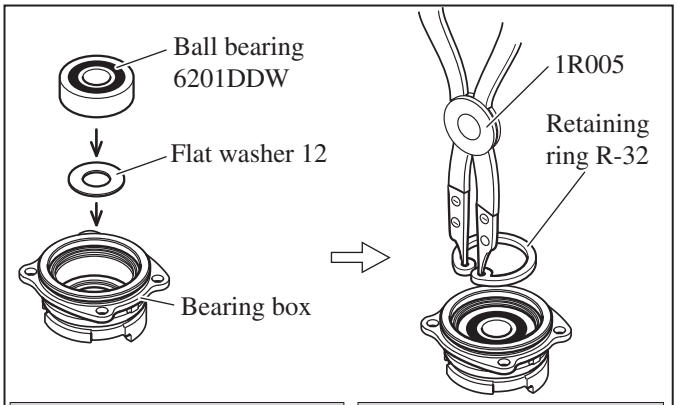
[3] DISASSEMBLY/ASSEMBLY

[3] -2. Spiral Bevel Gear 37, Ball Bearing 6201DDW (cont.)

ASSEMBLING

Assemble the parts in Bearing box as illustrated in **Figs. 20 to 25**.

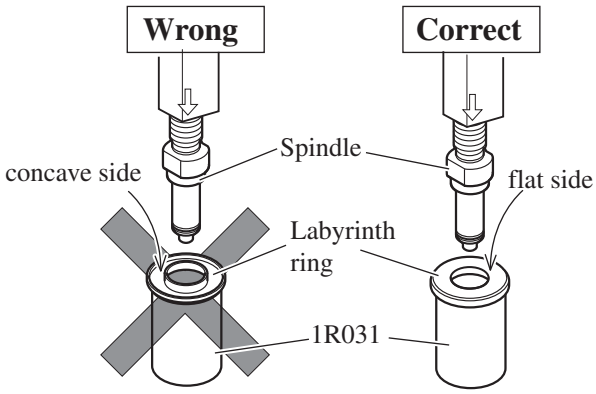
Fig. 20



Install Ball bearing 6201DDW and Flat washer 12 to Bearing box.

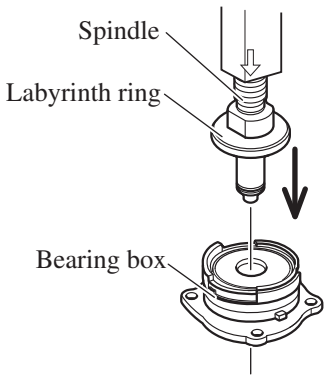
Fit Retaining ring R-32 into the groove of Bearing box using 1R005.

Fig. 21



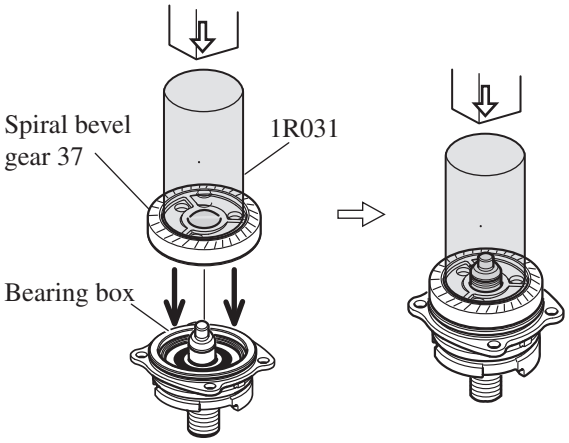
When setting Labyrinth ring on 1R031, face the flat side upward. Then press fit Spindle to Labyrinth ring.

Fig. 22



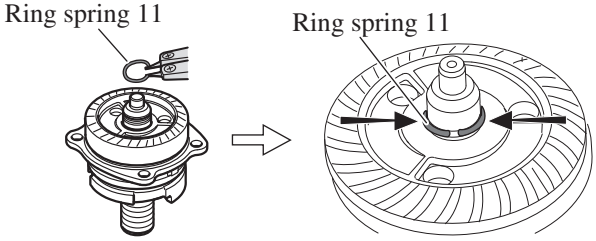
Press fit Spindle to Bearing box that is shown in Fig. 20.

Fig. 23



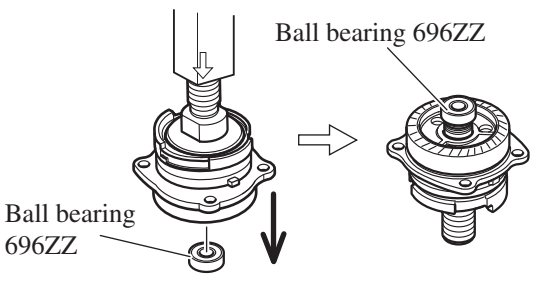
Face the teeth of Spiral bevel gear 37 upward and put 1R031 on Spiral bevel gear 37 as illustrated above. Press fit Spiral bevel gear 37 to Bearing box gently.

Fig. 24



Put Ring spring 11 into the groove of Spindle. As the cut ends of Ring spring 11 remains spread yet, press the sides of Ring spring 11 with pliers so as to fit them completely.

Fig. 25



Press fit Ball bearing 696ZZ to Spindle.

Repair

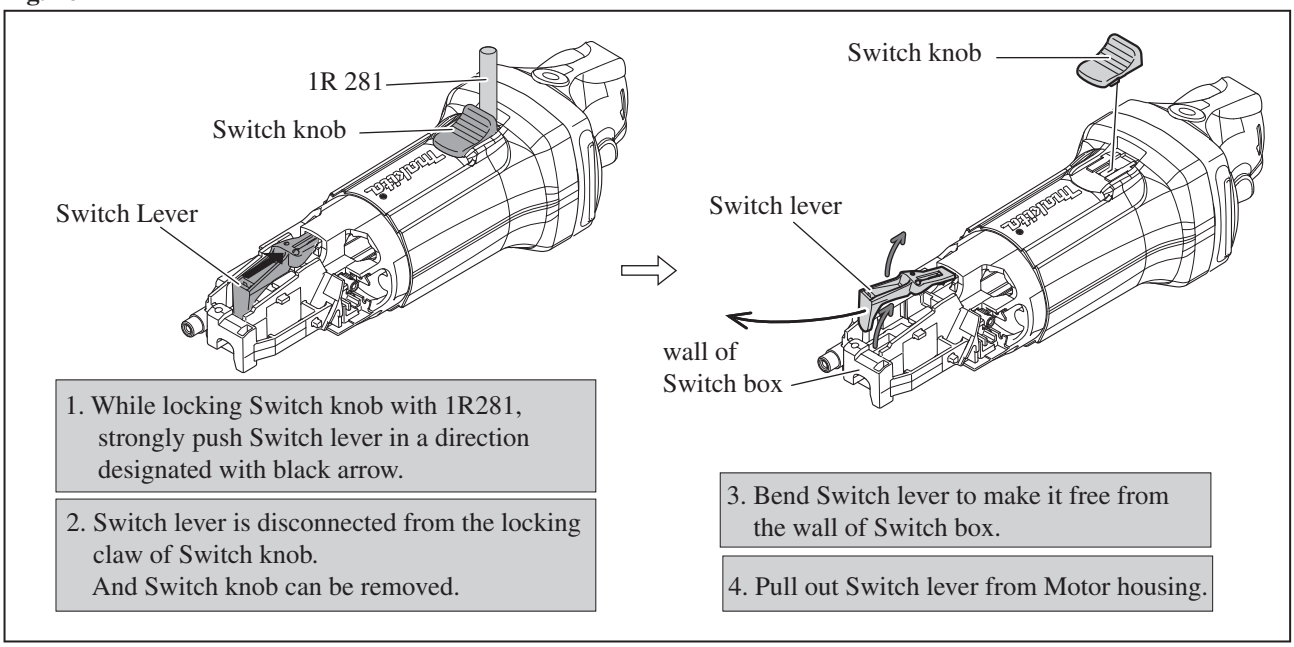
[3] DISASSEMBLY/ASSEMBLY

[3] -3. Switch mechanism (Switch lever and Switch knob)

DISASSEMBLING

(1) Remove Rear cover from Motor housing by removing 4x18 Tapping screw. (**Fig. 2**)
(2) Switch lever and Switch knob can be disassembled from the machine as illustrated in **Fig. 26**.

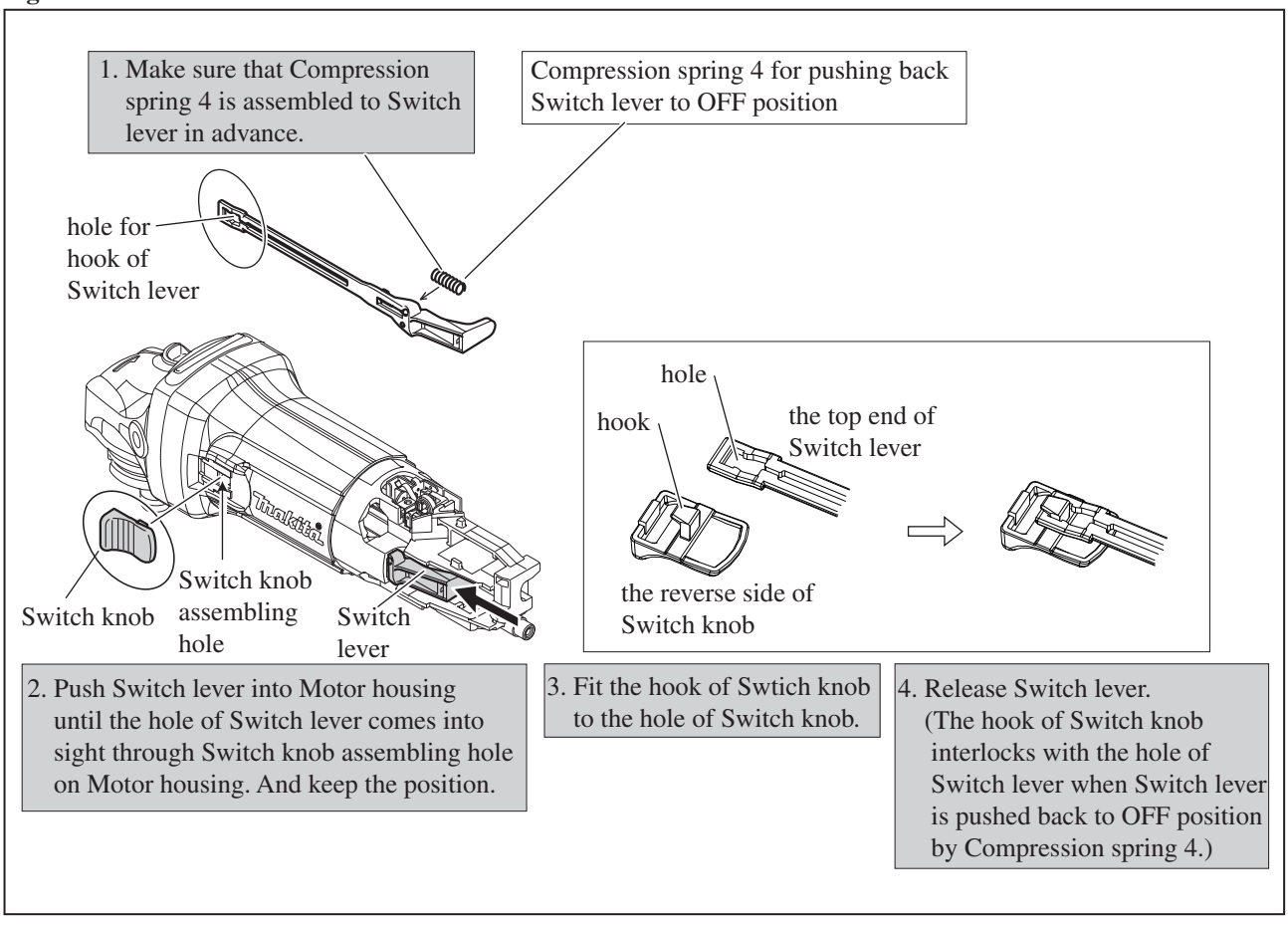
Fig. 26



ASSEMBLING

Interlock Switch knob with Switch lever as illustrated in **Fig. 27**.

Fig. 27



Repair

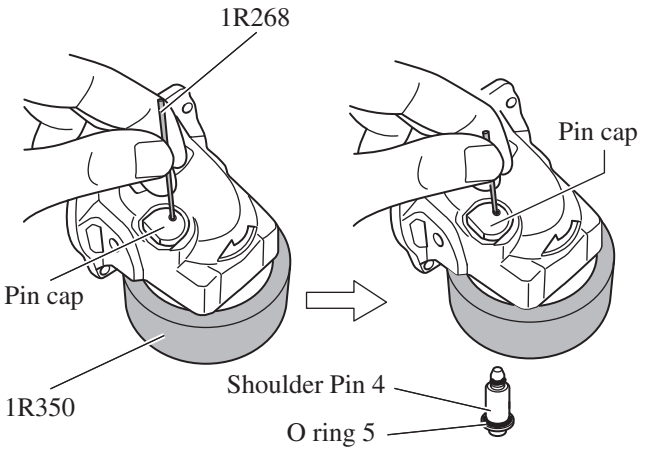
[3] DISASSEMBLY/ASSEMBLY

[3] -4 Shaft Lock Mechanism

DISASSEMBLING

(1) Disconnect Carbon brush from Armature's commutator as illustrated in **Fig. 2**.
(2) Disassemble Bearing box section from Gear housing as illustrated in **Fig. 3**.
(3) Separate Gear housing together with Armature from Motor housing as illustrated in **Fig. 4**.
(4) Disassemble Armature from Gear housing as illustrated in **Figs. 5 and 6**.
(5) Shaft lock mechanism can be disassembled in the order of **Figs. 28 and 29**.

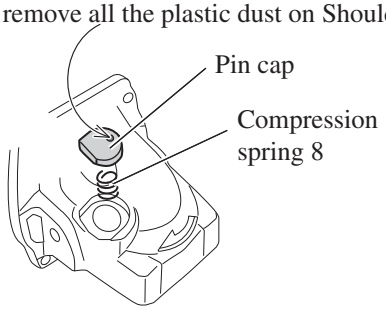
Fig. 28



Applying 1R268 to Shoulder pin 4 through the small hole on Pin cap, strike 1R268 with Hammer.
Now, Shoulder pin 4 comes out from Gear housing.

Fig. 29

Note: Do not removed Pin cap because removal of Shoulder pin 4 damages the inside surface of Pin cap, producing plastic dust. Therefore, be sure to use a new Pin cap for replacement and remove all the plastic dust on Should pin 4.



Release 1R268 from Pin cap carefully so that Pin cap is not slung by Compression spring 8.

ASSEMBLING

(1) Remove all the plastic dust on Shoulder pin 4. (**Fig. 30**)
(2) Assemble the parts for Shaft lock mechanism as illustrated in **Fig. 31**.
Note: Do not use the removed Pin cap. (See **Fig. 29**)

Fig. 30

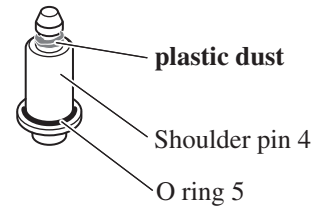
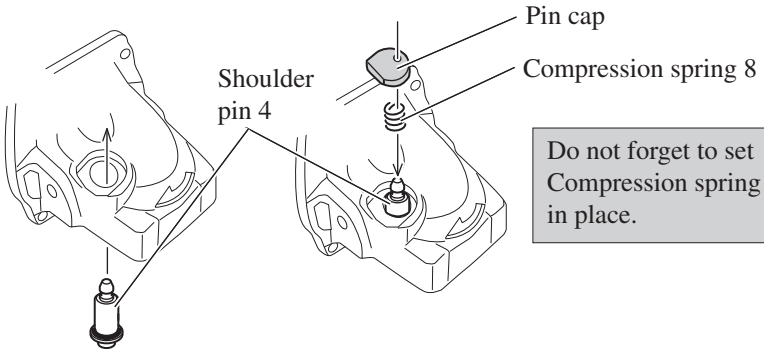


Fig. 31

Insert Shoulder pin 4 through the hole of Gear housing complete.

Install Pin cap by pressing it to Shoulder pin 4.



Do not forget to set Compression spring 8 in place.

Repair

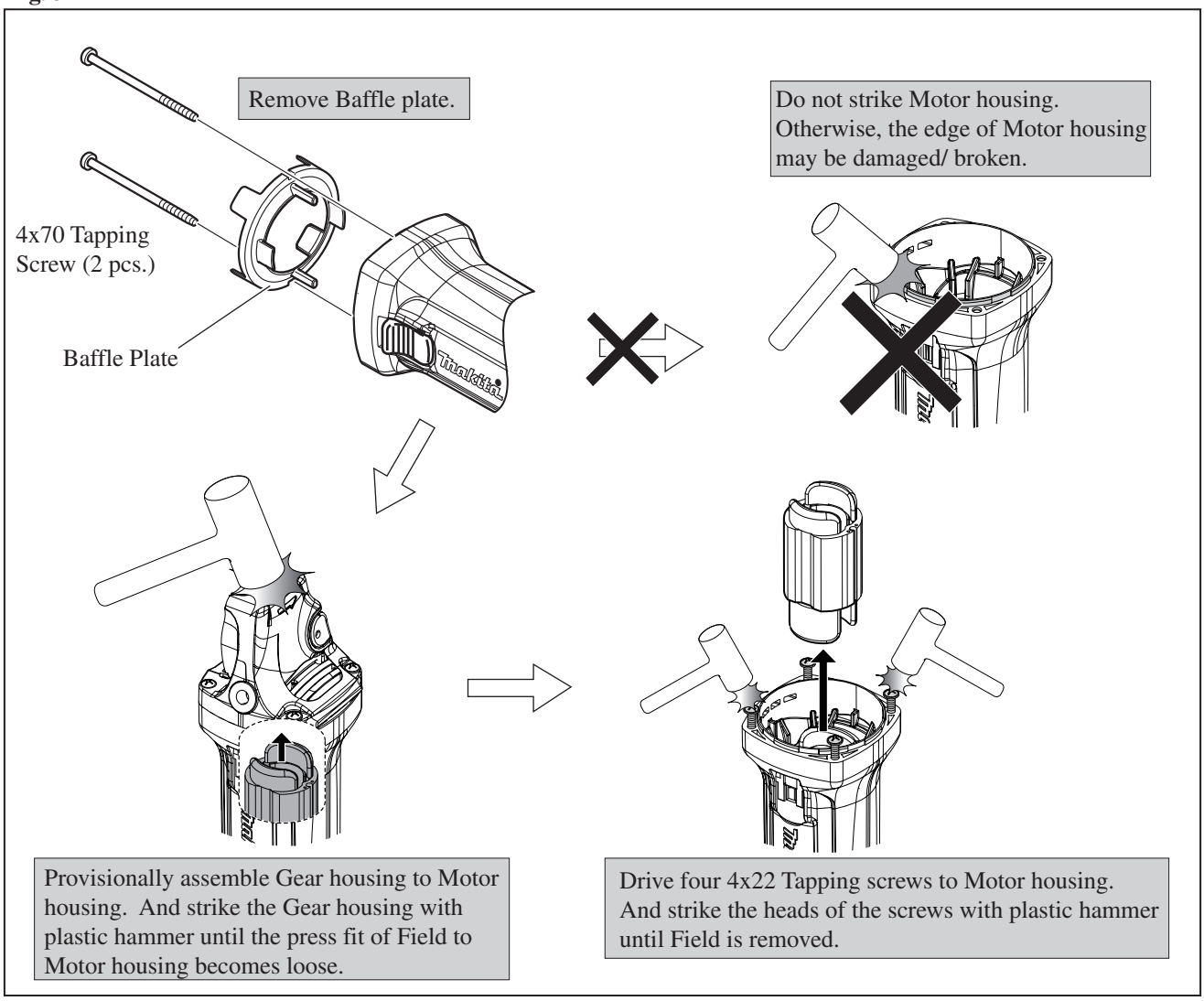
[3] DISASSEMBLY/ASSEMBLY

[3] -5 Field

DISASSEMBLING

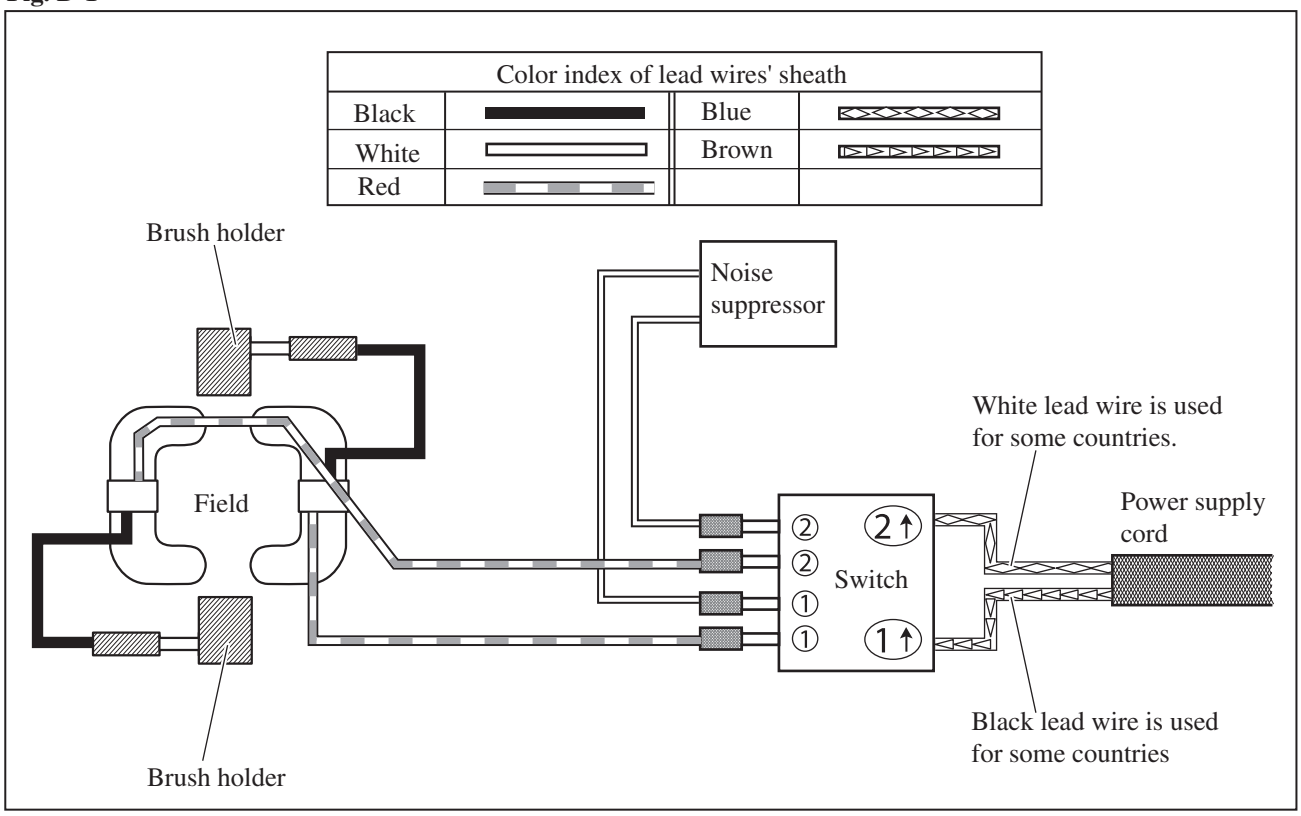
(1) After removing Rear cover, disconnect Carbon brush from Armature's commutator as illustrated in **Fig. 2**.
(2) Disassemble Bearing box section from Gear housing as illustrated in **Fig. 3**.
(3) Separate Gear housing together with Armature from Motor housing as illustrated in **Fig. 4**.
(4) Disassemble Armature from Gear housing as illustrated in **Figs. 5 and 6**.
(5) Disconnect Filed lead wires from brush holders and Switch. Refer to "**Circuit Diagram, Fig. D-1**".
(6) Now Field can be disassembled as illustrated in **Fig. 32**.

Fig. 32



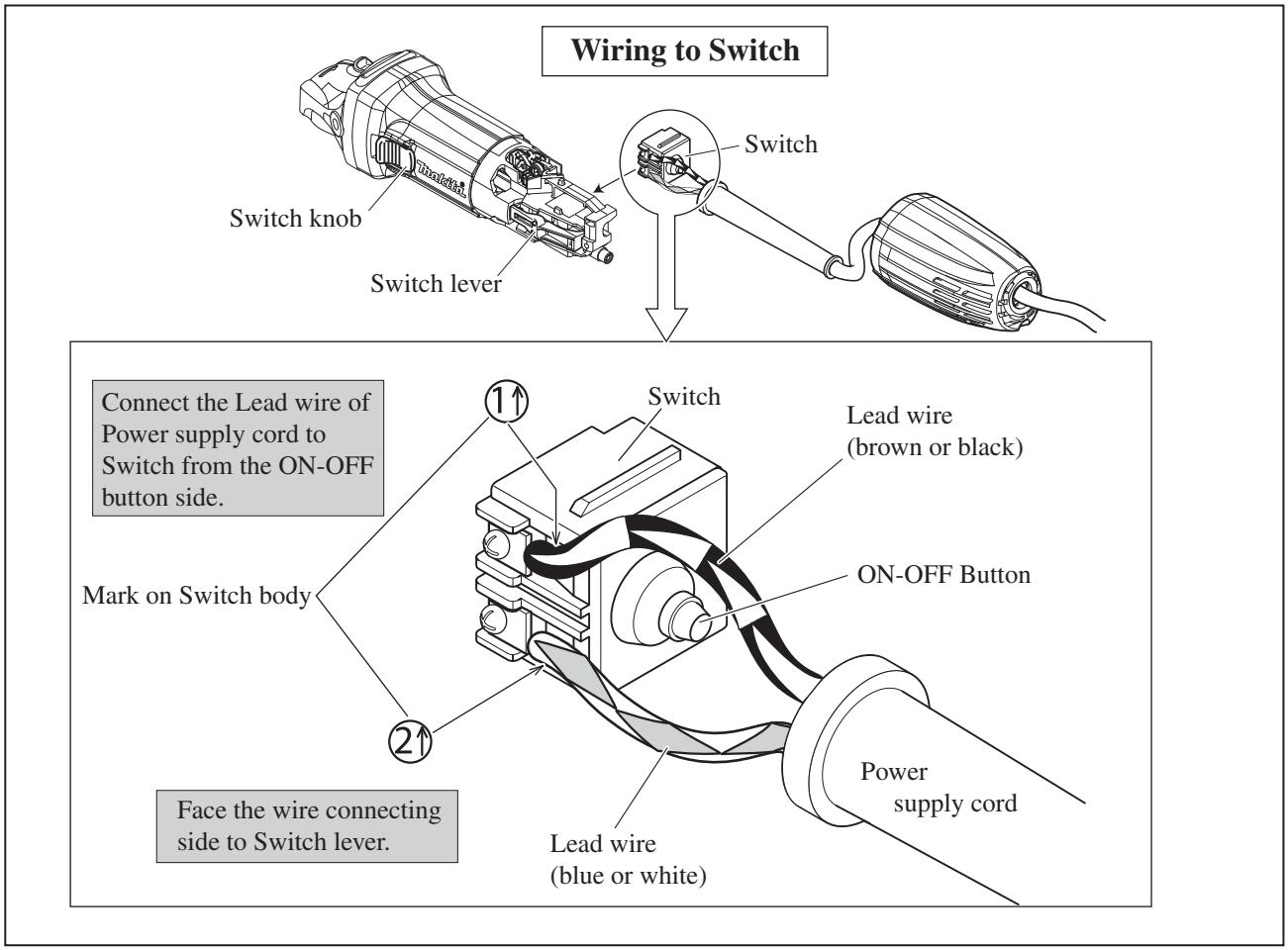
Circuit diagram

Fig. D-1



Wiring diagram

Fig. D-2



► Wiring diagram

Fig. D-3

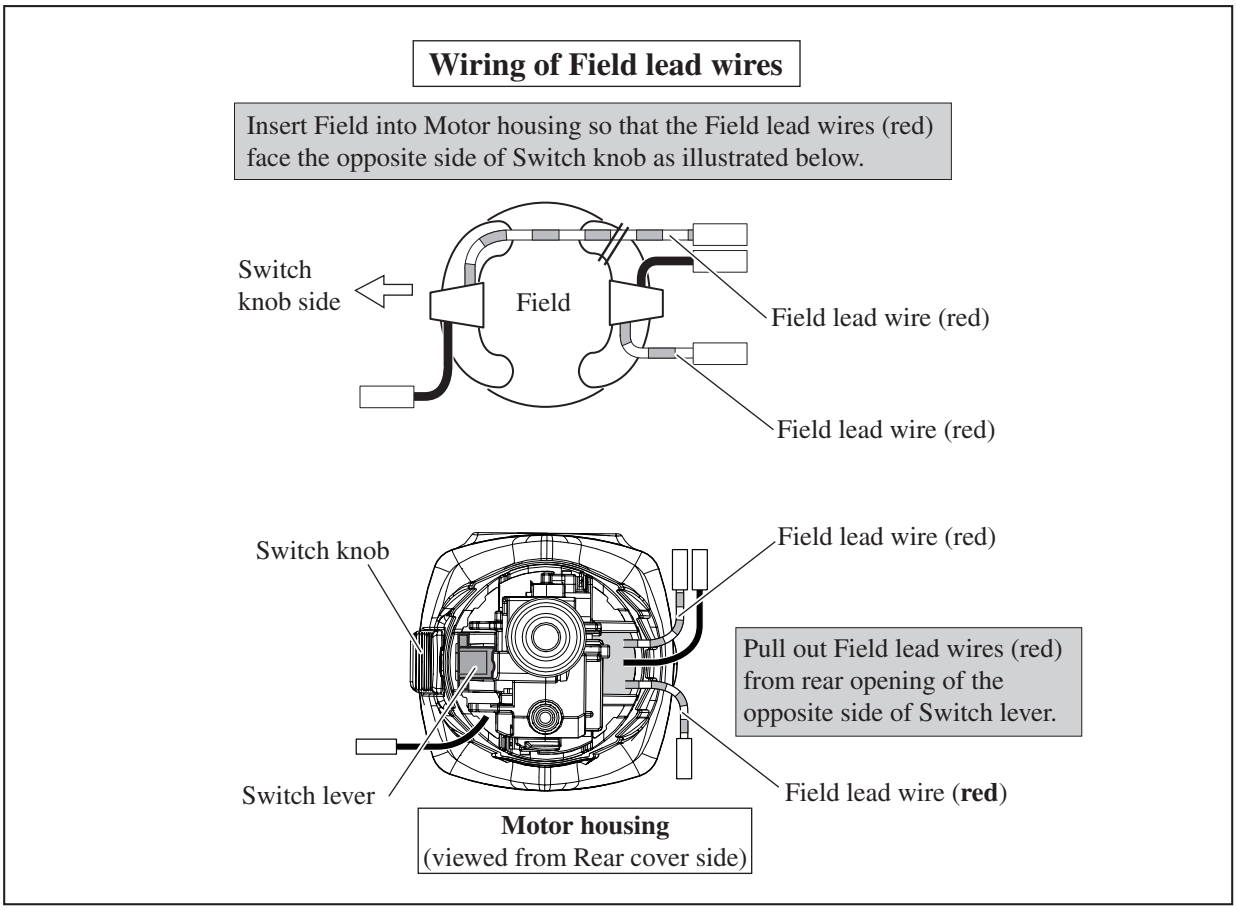
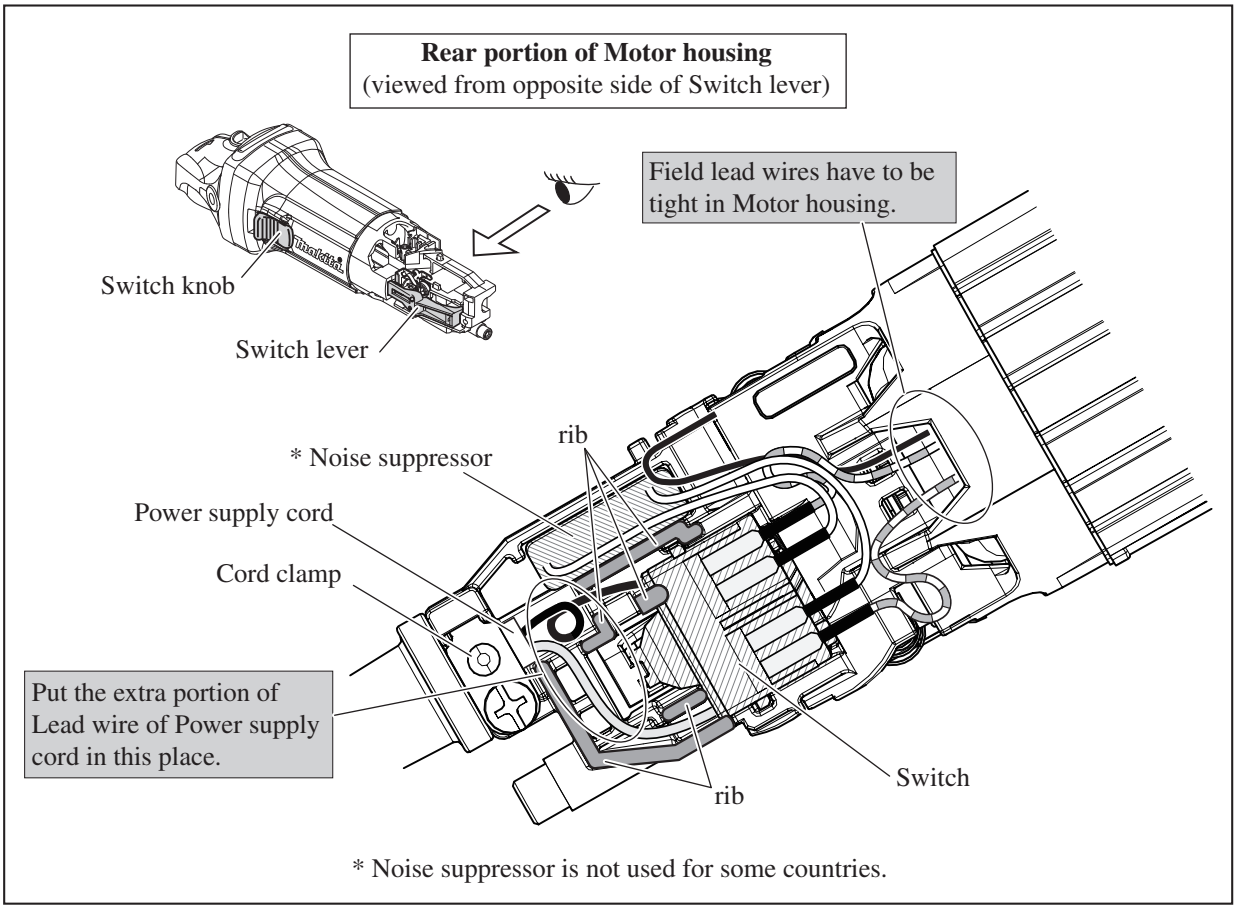


Fig. D-4



Wiring diagram

Fig. D-5

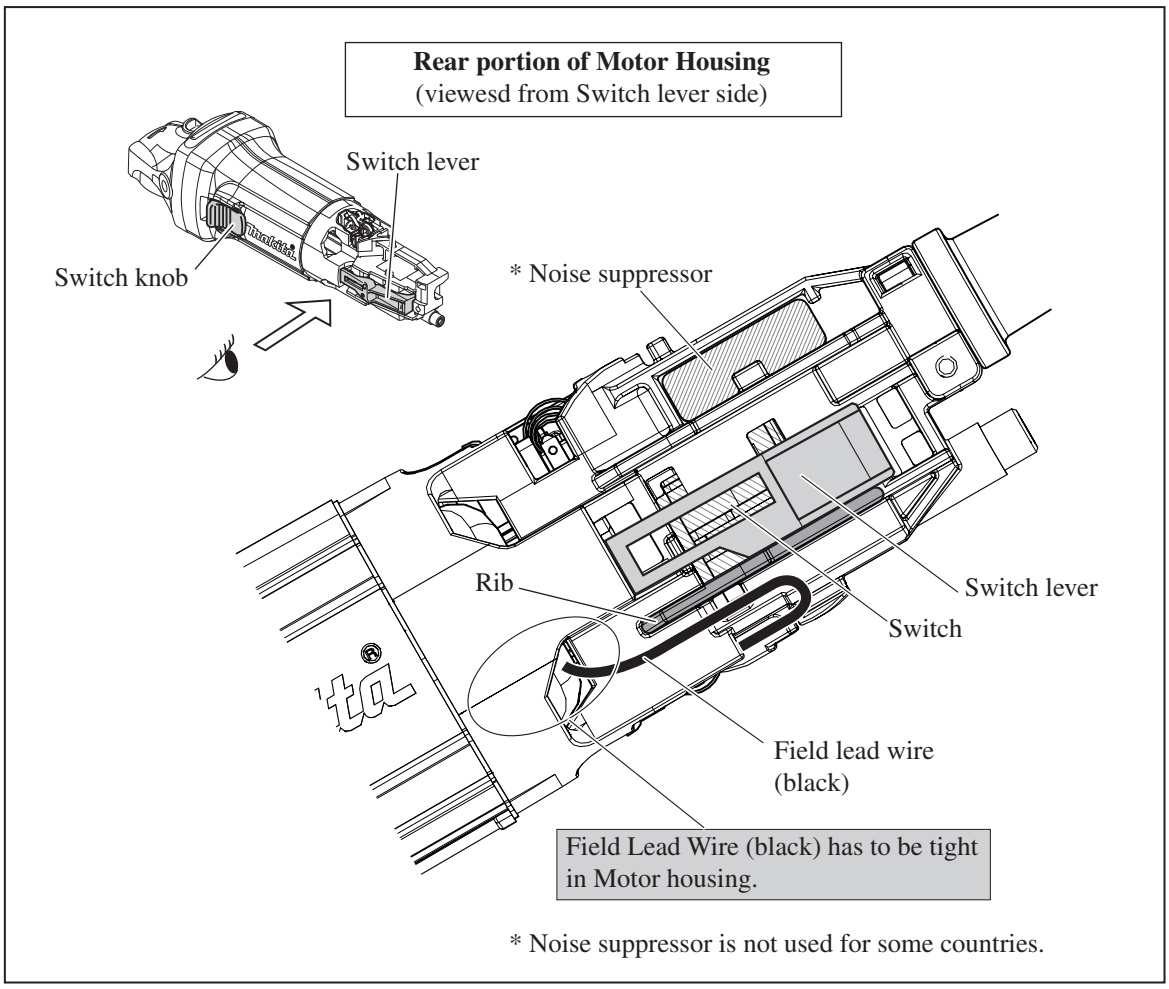
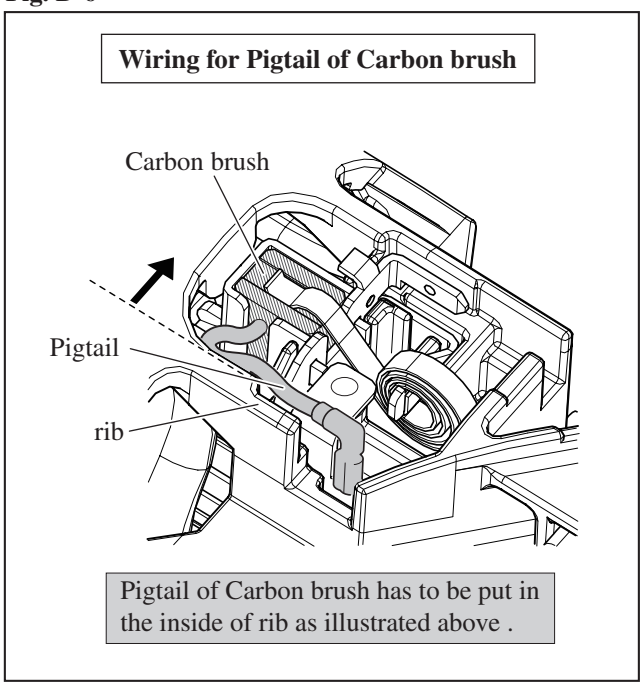



Fig. D-6